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A pre-test/post-test analysis of value, behavioral and spritual changes in drug treatment

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A PRE-TEST/POST-TEST ANALYSIS OF VALUE, BEHAVIORAL AND SPIRITUAL CHANGES IN DRUG TREATMENT

A Project

Presented to the

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Master of Social Work

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ABSTRACT

This research project focused on what changes are necessary for an individual if they are to be successful in overcoming an alcohol or drug addiction. The research included a pre-test and a post-test which measured the individual's response to questions concerning values, behaviors and spiritual components used by the 12 steps of Alcoholics Anonymous. The paradigm used was positivist; using quantitative and qualitative data collection methods and analysis.

Due to the growing number of persons needing drug treatment, social workers will be required to know what drug and alcohol recovery programs offer and what impact they have for the persons they serve.

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PROBLEM DEFINITION

This study utilized the positivist paradigm. Positivism has been described as the study of "the true nature of reality and how it truly works. The ultimate aim of science is to predict and control natural phenomena" (Guba, 1990).

The paradigm being adopted comes from the orientation of the question. The research questions for this study were: What needs to change in a person if they are to be successful in overcoming an alcohol or drug addiction? Are these changes behavioral? Or are they changes in values? Or does the change include a spiritual component? Do all three components need to be present for treatment to be successful?

Success was determined by the residents ability to complete program; which consisted of a treatment that was multidimensional, including psychotherapy, both group and individual, family therapy, and 12 step work taken from AA The 12 steps of AA looks at a person's values, behaviors, and spiritual make-up as an area of change. It is those values, behaviors, and spiritual components that are the focus of drug treatment.

The independent variable in this study was the drug treatment intervention, which included use of the "twelve steps" of AA; and the dependent variable is the value, behavioral, and spiritual changes that occur as a result of the independent variable.

It was hypothesized that these changes would have an impact on the persons going back into the community. How persons perceive themselves as having the tools

necessary to stay sober in a society that is seen as unequal and unjust is important. The tools used came from the values, behaviors and spiritual principles taught in drug treatment. Society has become a very complex structure that has been organized in such a way as to benefit a very small minority of people at the expense of many. For instance, Blacks have experienced an historic pattern of outside control that continues to exist due to racism, and racial discrimination. This oppression is especially felt in low-income black communities, most notably where income is at or below poverty levels.

"Denial of equal opportunities for employment, education, and health experienced by Blacks, individually and collectively, may lead some Blacks to seek solace in alcohol or drugs. Chemical substances are often used as an escape mechanism from these negative aspects of life" (Mosley, 1985). One of the coping tools deemed acceptable in our society is that of escape. One form of escape is through the use of alcohol and drugs. If escape were only limited to the use of non-addictive substances, then problems would not exist as they do today.

The problem areas of society effected by drug and alcohol addiction include health care, families, and crime. Health care is impacted by way of illnesses, drug-effected babies and the chronic disease of cirrhosis. "Total health care costs for patients treated for alcoholism in three pre-paid group practice plans declined by 23% for 13 to 18 months after treatment; health care service utilization by their family

members fell by 60%. This data certainly suggests that people with alcohol problems will be over-represented in general primary health care caseloads" (Weisner, 1986).

Families are also impacted by the addiction, both financially and dynamically, in respect to child abuse and spousal abuse. "Reports from literature indicate that between 20% and 50% of identified incestuous fathers are alcoholic or are heavy drinkers. There is also evidence that children of alcoholics may be at greater risk for developing alcoholism than are children of non-alcoholics" (Miller, 1987). Lastly, our crime rate is effected by drug and alcohol usage. Most crimes are committed by a person under the influence of a drug of some sort. "At this time, the criminal justice interface with alcohol problems is larger than for any other system. It is the largest referral source for alcohol treatment in many communities" (Weisner, 1986).

The problems effected by drugs and alcohol are many. It effects our families, health care and crime rate. A social worker's responsibility does not end with the effected individual, but must include the alcoholic's immediate surroundings, the community and the larger society. Clearly, this orientation to this problem is far-reaching. It impacts the individual practitioner, as well as the community worker and the social policy maker.

Recovery from drug and alcohol addiction plays a major role in reducing many of societies problems. AA states the way an individual can start the recovery process is through the 12 steps of AA Any agency that claims that they are helping people get a start in the recovery process is going to try to illicit these value, behavioral and

spiritual changes. Within the 12 steps, there are certain changes that evolve, and the literature supports this.

LITERATURE REVIEW

The elimination of substance abuse is the primary focus. Studies have shown that abstinence alone will not insure successful recovery, there needs to be further change. " Reduction and or elimination of a substance use is an important, if not primary concern of treatment, it is equally important that treatment result in enhanced employment, life satisfaction, and improved social functioning" (Sullivan, et al, 1992).

Drug treatment needs to address the bio-psychosocial aspects of addiction. Elimination of drug use is but one aspect of recovery. Drug treatment in community settings need to address the other areas of addiction that are not as readily apparent as the drug and alcohol use, though play a significant part in recovery. Community based treatment facilities use a multimethod concurrent interventions. These interventions include behavioral techniques, traditional psychotherapies, family therapies, and job training vocational rehabilitation. Behavioral techniques are utilized in order to eventually return the addict back into their environment without returning to drug and alcohol use. 12 step recovery plays a vital role in drug treatment recovery and uses behavioral modification as a tool for recovery. Traditional psychotherapy also plays a major role in community based drug treatment. The fact is that

psychopathology is relatively high among drug users. The reason for this is unknown, some have suggested the model of addiction as self medication, whereas the drugs are used to mask a deeper pathology of depression, anxiety, of other related psychiatric conditions. With psychotherapy " substantial rates of improvement on a variety of post-treatment measures including self-awareness, and improved relationships have been found among clients involved in individual therapies" (Freeman, 1992).

Family therapy is an area of drug treatment necessary for continued recovery. If an addict resides with other family members or if other family members are involved in the addicts recovery, it is important for the family members to understand the role that they all play in the addicted family system. The family needs to be involved in family recovery issues. " Research has found that family therapy generally produces a higher success rate of recovery than other interventions, particularly when it is used in conjunction with job training and individual and group counseling" (Freeman, 1992).

Job training and vocational rehabilitation play and important part in recovery. Often addicts coming into treatment lack the necessary skills in order to find employment. If one is to address the needs of the recovering addict, vocational training can be used as an important esteem building tool, and for continued recovery after discharge form treatment. Social stability has been recognized as a major criteria for post-discharge success; social stability factors include all of the above mentioned areas of recovery, which include " marital status and family cohesion, residential stability, and employment" (Sullivan, et al, 1992). Drug treatment should

include all of the mentioned areas of intervention and treatment. The addict needs all aspects of his life examined if he is to be successful in recovery. Intervention in drug treatment states that the addict needs change; and these changes are around values, behaviors and spiritual. Drug treatment uses the 12 steps of recovery to assist with these changes, Alcoholics Anonymous is the core of 12 step recovery. Alcoholics Anonymous' use of the 12 steps illicit major life changes in the recovering person. These life changes are the core of every addicts disease. The literature review supports the areas of change needed in order for an individual to start the process of recovery. Changes include values and behaviors. These values and behaviors include fellowship, powerlessness, acceptance, self-centeredness, generativity, denial and arrogance, and, lastly, the area of change that drug treatment considers the cornerstone or recovery, a spiritual transformation. One of the values that drug treatment teaches is that we need others. "AA learned that alcoholics, in their own weakness and limitation, needed others precisely in their weakness and limitation. Only by giving could the alcoholic get sobriety; only by exposing vulnerability could the alcoholic find healing" (Kurtz, 1982).

Another value mentioned in the above quote is that of giving to others. One of the AA slogans states the paradox that you can only keep what you have by giving it away (you keep sobriety by sharing your knowledge with others).

A third value to develop through a drug treatment program is the idea of powerlessness. The first step in AA's 12 steps is, "We admitted we were powerless

over alcohol; that our lives had become unmanageable" (Alcoholics Anonymous, 1976). "The first step described a person who is limited." The acknowledgment "I am an alcoholic," that is the admission of powerlessness over alcohol accepts as first truth human essential limitation, personal fundamental finitude, at least for the alcoholic" (Kurtz, 1982). It is the first step that must be taken in its entirety in order for the next 11 steps to be taken. It is in the first step that, if taken absolutely and honestly, one will break through the denial system. It is the denial system that a substance abuser must keep intact in order to continue use. The idea of admitting powerlessness directly confronts a persons thought of control. In the AA program, control is parallel to god-like powers.

"The first step towards recovery from alcoholism must be the admission and acceptance of this fact that is so blatantly obvious to others, but so tenaciously denied by the obsessive-compulsive drinker" (Kurtz, 1982). The above examples to be measured during the course of recovery is the thought of powerlessness over the addiction; the acknowledgment of loss of control, and the breaking of the denial system. AA also provides a special forum to examine human tendencies of "arrogance, self-centeredness, psychological denial, and self-destructiveness" (Khantzian and Mack, 1994).

All behaviors are addressed in drug treatment via the 12 steps. Arrogance can be addressed through step four, which states, "Made a searching and fearless moral inventory of ourselves" (AA, 1976). Self-centeredness can be addressed through step

seven, which states, "Humbly asked Him to remove our short-comings" (AA, 1976). All shortcomings that can get in the way of continued sobriety are addressed in step seven.

The 12-step recovery program also addresses what Erickson described in his eight stages of man as generativity. Sponsorship is described as someone who advises a person on how to negotiate the 12 steps of AA This person has this knowledge because they themselves have gone through them. Sponsorship brings to light the value of altruism. "A sponsor, acting as a mentor, shares the lessons and experience derived from working a program of recovery in AA with a sponsoree. Being a sponsor embodies generativity and altruism" (Chappel, 1994).

AA also embodies the idea of a mature ego that has been put forth by Vallient. The article points to the use of a group conscience in decision making. Every member is heard from and taken into consideration for the group. "The group conscience is always sensitive to affect and the well-being of all members of the group and other members of AA In this way, it can provide a powerful stimulus to the development of altruism, one of the mature ego defense mechanisms" (Chappel, 1994). This idea of looking to the good of the group, and that it does not sacrifice the good of an individual, speaks of valuing community outside of the program of AA

AA also addressed the values that can best be described as from within, which may encompass a sense of purpose, direction, and responsibility. Many an addict coming into recovery has lost the inner self. Many times this loss of inner self has

added fuel to the addiction. AA describes this loss of self as a lack of a spiritual sense. "Deficiencies to what one calls a spiritual bankruptcy, which has been defined as the failure to identify or own his inner values, purpose, direction, and responsibility. AA addressed specifically the vulnerable personality elements that persons have identified as being the root of their alcoholism and drug addiction" (Khantzian and Mack, 1994). Specifically, the issue of spirituality is addressed through step three, which states, "Made a decision to turn our will and our lives over to the care of Go as we understood Him;" and through step 12, "Sought through prayer and medication to improve our conscious contact with God as we understood Him, praying only for knowledge of his will for us and the power to carry that out" (AA, 1979).

It has been said by some that addiction is a spiritual disease. Spirituality is hard to conceptualize, nevertheless, it is an important ingredient for change in the process of recovery through AA's 12 steps. "Spirituality may best be represented as a level, or some combination of process and level of change. In other words, it is not clear whether spirituality is a means to change, a focus of change, or some combination of the two" (Snow, et al, 1994). Confusion about exactly what role spirituality plays in is somewhat ambiguous, but for each person, a higher power is a source of strength. The addict can now look to something more powerful, and quit looking to self as center of the universe, which tends to be the malady of every addict.

Smith (1994) writes about AA and spirituality stating, "The 'Big Book' of Alcoholic's Anonymous uses the terms spiritual experience and spiritual awakening, manifesting itself in many ways using the 12 steps as a guide to describe what happens to bring about a personality change sufficient to induce recovery." AA is considered by those who practice its principles as a spiritual program, and can be summed up in a prayer that opens each AA meeting, "God grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference" (AA, 1976). No person who continues to drink and use will be willing to undergo the amount of change required of a person working honestly the 12 steps of AA It is through the use of the 12 steps that a person starts the process of change; behaviorally, spiritually, and ones values toward addiction recovery.

Social workers come into contact with persons who use drugs and alcohol regularly, whether one is working in a direct practice level with families, couples, and individuals who either have been referred through courts, child protective services, or adult protective service. One could come into contact with the disease as a community worker who is addressing the impact of gang violence in a particular community, or on a macro level in trying to lobby for additional monies to be spent in the prevention of abuse through our schools. Social work practitioners need to know that in-patient recovery is bringing about the behavioral and value changes that are required of a sober individual, and can help to ensure a successful transition back into the community. AA has a strong record of success (Gilbert, 1991), and if a recovery

program is using the 12 steps as a guide to recovery, then those changes should be measurable.

The goal of recovery is to successfully transition a sober person back into the community with a set of values suggested by AA Given what has been stated in the literature, my hypothesis is that as a person enters a drug recovery program, certain behaviors and values will be present that maintain drug abuse, and that upon leaving that program, those values, behaviors and spirituality espoused by AA as a means of recovery need to be present in each individual.

METHOD

PURPOSE AND DESIGN

The research project used a pre-test/post-test, one group design. Each person who entered into the drug recovery program was given a Likert-type questionnaire and open-ended qualitative questionnaire, which was designed to measure a participant's response to various behavioral and value questions, as taken from AA's 12 steps. Each person went through a recovery program that was based on the 12 steps of AA educational and group therapy. Upon completion of the program, a post-test was administered using the same Likert-type scale and qualitative questions, which measured responses to behavioral and value questions. The **strengths** of this design are that "this design assesses the dependent variable (values and behaviors) before and after the stimulus intervention drug treatment is introduced" (Rubin-Babbie, 1993).

The effectiveness of the drug treatment can be assessed by way of the outcome variables before and after drug treatment is delivered.

Every participant received the same program of drug intervention during the 30 days, which included individual therapy, group education, family/couples therapy and 12 step group work. Group activities included meals that were eaten together, community involvement and social recreational activities. An additional strength includes the Likert scale. The strength of the Likert-type instrument is its variance and unidimensionality. "The particular value of the Likert scale format is the unambiguous ordinality of response categories" (Rubin-Babbie, 1992).

The weaknesses associated with the one-group pre-test/post-test relate to the threats to internal validity. Internal validity is explained as the extent to which the independent variable caused the dependent variable to change. Threats to internal validity can include history, maturation, testing, and statistical regression effecting the outcome and change of the dependent variable, and not the intervention as the sole reason for the dependent variable change.

When addressing the threats to internal validity which affect causality, certain precautions must be made. In addressing history and maturation, each person that came into the drug treatment program filled out a demographics sheet. Demographics will include age, sex, ethnicity, educational background, prior treatment attempts, and whether one had been forced into treatment. This information was gathered in order that the researcher could evaluate trends and differences among participants. History

and maturation were addressed secondly by the fact that those participants tested were in an in-patient setting. Any extraneous news or events coming from within or from the outside would be experienced by all those participating in the research. A third threat to internal validity is testing. Here it is stated that the outcome may be due to the original pre-test. "The pre-test may influence participants to learn the correct, or socially desirable, responses to the test. The more desirable impression they conveyed at the post-test, therefore, may have more to do with the effects of taking the two tests than with the effects if the intervention" (Rubin/Babbie, 1993).

The fourth threat to internal validity is statistical regression. The participants may have entered the drug program on a false low on the pre-test, and that the post-test scores indicate a regression towards the mean. The regression would indicate that they might have changed without exposure to the treatment. The four threats to internal validity history, maturation or the passing of time, testing, statistical regression can all be addressed by using a control group, done in order to match differences. In the above mentioned threats to internal validity history and the passing of time, can be addressed by the nature of the treatment. Each participant in the inpatient setting received the same education, therapy, and 12 step work. The threat of testing and statistical regression poses a problem, their is no way to know if it is our intervention that causes the changes or if these changes would have occurred with out the intervention; most often a control group is used to guard against this threat; in this

research it is unethical to withhold the intervention given the life and death nature of recovery.

The population and sample to be used for this research design is those persons, male and female, who decide to go into an residential drug and alcohol recovery program. The limitations to this sample population are that participants in recovery to some degree have made a decision willingly or unwillingly to seek drug treatment. This population will not be able to fit a probability sample, in that they do not represent the same characteristics of those not seeking a substance abuse program, or for that matter, they may not represent persons willing to go into a substance abuse program that uses another model of recovery.

SAMPLING, DATA GATHERING, AND MEASUREMENT

As described earlier in this paper, the sample used was residents at a substance abuse program. Each resident was given a pre-test upon entrance into the drug treatment program. The pre-test consisted of a variety of questions measuring a person's behavior's and values as they correspond to a positive outcome espoused by the 12 steps of AA These answers were recorded on a Likert-type quantitative scale. (See appendix 1)

In addition to the responses on the Likert scale, questions were asked of a qualitative nature. The participants were asked to describe briefly their perception of a higher power and behavioral attitude questions. All of the above questions

addressed values and behaviors that are espoused by the 12 steps of Alcoholics Anonymous. Each participant's score on the Likert scale reflected how that value or behavior relates to their current functioning. After the intervention took place and the participants were to be discharged, a post-test was given, which yielded quantitative scores. This was done in order to look at each participants' score and how that score differs from the score obtained on the pre-test as a result of the intervention.

For the qualitative part of the research, the participants wrote briefly their concept of spirituality, and interviewed regarding behavioral changes that may have occurred as a result of the intervention. This qualitative piece of this research project involves three areas. The first area of information was behavioral. Each participant self reported how likely they were to follow directions and, second, how likely they were to make amends to those they hurt. The second questions were also recorded on the pre- and post-test questionnaire. The third area of the qualitative piece of research involves spirituality. These three questions involve analysing qualitative data; this type of data collection is another tool for measuring change due to our intervention; those of looking at values, behaviors and spiritual change as result of drug treatment.

As the researcher was formulating the Likert scale questionnaire, the researcher must paid attention to reliability and validity of the questions. The researcher pre-tested the instrument and illicit feedback from other social work professionals in order to better understand, if the instrument was measuring what the researcher intends to measure, it's face validity. Face validity states that the items you

want to measure should appear on it's face to indicate some aspect of what it is you are measuring; for example control, the question should have concepts and aspects of control. The first question on the survey shows this example; " Control is important in my life " The question has face validity. The weakness with an instrument fashioned by the researcher was that the instrument does not have a history of usage, nor has it been tested in relation to areas of ethnicity, culture, sexual orientation or age. Each of these factors may influence the validity of the instrument.

PROCEDURE AND PROTECTION OF HUMAN SUBJECTS

The pre-test information was gathered upon admission into the drug treatment program. The intake worker administered both the Likert-type test and the qualitative question on spirituality and behaviors. The same format was followed for the post-test. The participant was given both the quantitative questionnaire, and the qualitative questions upon discharge from the drug treatment program.

The informed consent was obtained upon admission to the drug treatment program. All questions, as well as the procedure and research proposal, were reviewed by a human subjects committee prior to conducting the research, to insure the participants' safety.

Upon completion of participants' role, a debriefing statement was handed out, which included the reason for conducting the research, a way to obtain general results

of the study, and a person to contact if the participant had any questions or concerns related to the study.

DATA ANALYSIS

The research question for this study was: What needs to change in a person if he or she is to be successful in overcoming an alcohol or drug addiction? Are these changes behavioral, or are they changes in values, or does the change include a spiritual component? Do all three components need to be present for treatment to be successful?

The dependent variable in this study was a set of values, behaviors, and spiritual changes that can occur as a result of drug treatment intervention which utilizes the 12 steps of AA, couples therapy, family group and vocational rehabilitation. "Success" was operationalized as the change that occurs in relation to the dependent variable, as a result of the intervention. As a result of the change that occurs, individuals were seen as more successful in achieving longer periods of sobriety. Sobriety in recovery was considered as "success."

The research was a pre-test/post-test one-group study design. Each person who entered into the drug recovery program was given a Likert-type questionnaire, which measured the participants' responses to the dependent variable questions. (See appendix #1) The analysis used to interpret this data included chi-square and Cramer's V. "Chi-square test assesses the extent to which the frequencies observed in

the table of results differ from what would be expected to be observed if the distribution was created by chance" (Rubin/Babbie, 1993).

The data was obtained by the administration of a pre-test, post-test questionnaire (see appendix #1) to participants who entered into Cedar House Drug Rehabilitation Center. Participants were tested upon entrance (pre-test) and upon completion of 30 days (post-test). It was hypothesized that there would be significant change between pre- and post-test answers as a result of the drug treatment intervention.

Data collected included demographics, gender, ethnicity, age, educational background, number of treatment attempts and whether the participants' stay in drug treatment was voluntary or involuntary. There was no missing data on any of the 20 participant's questionnaires. SPSS/PC+ Studentware was utilized for the purpose of data analysis.

Chi square and/or Cramer's V were the statistics utilized in the study. Cramer's V is used when both the independent and dependent variables are at a nominal level of measurement. With nominal data, all that can be measured is the strength of the association. The measure of the association for Cramer's V yields an association between zero to 1.0. Cramer's V was also chosen, because Cramer's V calculates and takes into account empty cells in calculating significance. Once an association is established between the dependent and independent variables, a gamma is calculated. Gamma is a "way of standardizing the difference between the number of concordant

and discordant pairs . . . You calculate the difference between the number of concordant discordant pairs, (P-Q), and then divide this difference by the sum of the number of concordant and discordant pairs (P+Q)" (1988, Norusis). A gamma score falls between -1.0 to 1.0. A positive gamma indicates that there are more like cordant pairs of cases than unlike pairs--a positive relationship. A negative gamma would mean there are more unlike, or discordant, pairs. A negative gamma indicates that there is a negative relationship between the variables after the introduction of the intervention. The following is a table showing the results of cross tabulation for each variable pre- and post-test, using a Cramer's V for significance and gamma for the strength of the significance. Significance was found at or below (P=.05) for the following variables after the post-test (see table #1).

The following three areas were found to be significant. 1) Honesty: "It is important to be honest in all areas of my life." Honesty was found to be significant after 30 days of drug treatment at (P=.05). 2) Family and friends: "Family and friends were effected by my drug and alcohol use." The data was significant at (P=.012) after 30 days of treatment. 3) Faults: Faults was found to be significant (P=.000) after 30 days of treatment. Understanding who has been hurt and what the participant's role is, is stressed in early recovery.

Having obtained significance in these areas with pre- and post-test, I wanted to find out if gender, ethnicity and age showed any significant differences. The results of gender is shown on table #2. Gender differences were found to be significant in the

following areas. "Family and friends were effected by my drug and alcohol use." Males were found to be significant at (P=.011). Females at (P=.165) level were not shown to have significance after 30 days of drug treatment. The next variable to show significant results was faults; "it is important to understand my faults." Females showed a significant difference in their answers in the pre- and post-tests (P=.004), but males could not be calculated as the number of rows and columns were one. "Sharing of experience" is important in recovery and drug treatment, not only for the individual, but also for others in recovery. Females exhibited a significant difference in pre- and post-test answer (P=.025) after 30 days of drug treatment. Males did not show a level of significance for sharing, (P=.851).

After the statistics for gender were run, I looked at the significance of ethnicity. The reason for factoring in ethnicity was to further evaluate drug treatment, and to look at the possibility of ethnicity as a treatment concern. The results of ethnicity are as follows in table #3. The data shows a significant difference in the pre- and post-test (P=.020) for white and (P=.046) for non-white for the dependent variable "honesty." Non-white participants in this study include Afro-American, Hispanic, Native American, and Asian. Both ethnic groups recognized honesty as an important recovery tool after the 30-day drug treatment program. Significance was found for "drug use hurting family and friends" for white participants (P=.027), though no significant differences for non-white, (P=.180). Non-whites tended not to see their drug use effecting their family and friends after 30-day drug treatment. Significant

differences were found for unmanageability, meaning that "my life is unmanageable because of my drug use." This is a core concept of step one of Alcoholics Anonymous. White participants showed significant differences (P=.050) after 30 days, and non-white did not (P=.319), non-white participants did not see their life as unmanageable after 30 days of drug treatment.

The following variables look at age differences in drug treatment. Does age need to be taken into account when treating addicts and alcoholics? The following (table #4) shows the results. Significant differences were found for six variables: 1) Control life, (meaning I can control my own life, which relates to the first step of AA). Those persons under age 32 had significant differences between pre- and post-test scores (P=.026) after 30 days of treatment. Those participants over 32 years showed no significant differences (P=.186) after 30 days. 2) Honesty: honesty was also found to be significant among those participants who were under 32 years of age (P=.011), and over 32 years (P=.047). This significance was achieved after 30 days of drug treatment. 3) Sharing knowledge: sharing of knowledge with others; "it is important to share recovery with others, one addict helping another." A significant difference was found for those participants under 32 years of age (P=.050) after 30 days of treatment, though no significant differences were found for participants over 32 years (P=.391). 4) Admit: Admitting mistakes, which correlates with honesty, showed a significant difference for those over 32 years of age (P=.047), but not for participants under 32 years of age (P=.267) after 30 days of drug treatment. 5) Faults:

Faults are important to understand. A significant difference between pre- and post-test were found for participants under 32 years of age (P=.004) after 30 days of drug treatment, but participants over 32 years of age could not be calculated as the number of non-empty rows or columns is one. Faults correlate with admitting; understanding faults can assist with recovery in one's self-evaluation. 6) Personal willpower: "Personal willpower is all I need to recover," significant difference was found for persons over 32 years of age (P=.012), and not for participants under 32 years of age (P=.446) after 30 days of drug treatment. Again, personal willpower was addressed in drug treatment with step two of AA, "turning my will and my life over to the care of God." It is the paradox of giving up will power in order to gain power.

The decision not to run statistics for voluntary and involuntary treatment stays was made due to the fact that only one participant acknowledged participating in treatment as involuntary.

The results of the chi-square using Cramer's V at .05 and using gamma for the strength of association falling between -1 to +1 resulted in being able to reject the null hypothesis, which states that the drug treatment intervention did cause a significant change between the pre-and post-tests.

The qualitative part of my data analysis consisted of three questions. What does spirituality mean to you, and is it important? Second, how likely are you to follow directions that are contrary to the way you behave? Third, how likely are you to admit to a person directly that you are sorry for causing them pain? The three

questions were designed to look at a person's spiritual bases pre-test and post-test, to look at a person's behavior pre-test and post-test and, lastly, to look at one's values, as it pertains to making amends to another. All three of these components were addressed in drug treatment, and are an integral part of ongoing recovery from addiction. Each answer from the participants were grouped together, then certain properties were highlighted, along with their accompanying components. It was hoped that this sort of analysis would yield data that was meaningful for the group of participants who went through drug treatment.

For pre-test spirituality, participants wrote about spirituality as a power that might help them with their addiction. Spirituality was also seen as a guiding source for the establishment of morals, standards, and values. The most often reported name for their spirituality was God, and that the God they knew was unclear, in that most participants were hoping for a development of some understanding of what spirituality means in their addiction. Post-test spirituality reflected what participants learned in the first 30 days of drug treatment. The majority of the participants' name for spirituality at this point in recovery was God. The participants most often stated that their higher power (God) was an understanding that they must develop if they were to remain clean from drugs and alcohol. The higher power (God) was also described as "one who brings about inner peace and contentment, a daily guidance, peace, comfort, calm and a lifeline." This reflection of spirituality is stressed in drug treatment recovery, many of which are espoused in the steps of AA steps 2, 3, 5, 6, 7 and 11.

The second qualitative question asked about behaviors, "Are you likely to follow directions that are contrary to the way you behave?" Coming into drug treatment, participants are often asked to do things that are contrary to the way they behaved. Each answer was broken down into properties and components. The responses to this question on the pre-test varied from " I will not follow directions that are contrary to the way I behave," to "I am not sure if I would follow directions that are contrary to the way I behave." Mixed in with the people who answered with a positive response of yes, most talked of willingness. Willingness in addictions recovery speaks to an individual's desire to perform a thought or action. One can be heard to say "I have a willingness to do what it takes to recover." This means that the person wants to recover, though he or she understands there is no certainty in his or her desire. Post-test results from this behavior question revealed little about change. Once again, there tended to be mixed results of positive and negative behavior responses. Some were still steadfast in their refusal to follow directions contrary to behavior, and others continued talk of willingness in recovery, which states, "I will go to any lengths to recover from my addictions," or understanding that "I need willingness to change old behavior which may entail directions which initially go against what I believe or have acted on in the past."

The third question asked of the participants was, "How likely are you to admit to a person directly that you are sorry for causing them pain?" This question of values was brought up in treatment so a person might better understand the far-reaching

effects of their addiction. Family and couples' group was designed to have participants share their disease and start the healing process necessary for recovery. Admitting to another is also addressed via the 12 steps with step nine, and partially with step one, looking at one's life as unmanageable. Most of the participants on both the pre- and post-test answered that they were very likely to make amends to another. This response is strange in light of the responses that were illicited in question two, which states, "How likely are you to follow directions that are contrary to the way you behave?" The biggest difference between answers on the pre- and post-test was centered on the word "recovery." Consistently, each participant on the post-test mentioned admitting to another that they were sorry, this as important part of continuing recovery.

The data presented involves both quantitative and qualitative analysis. Differences have shown up for age, gender and ethnicity, as well as changes in values, behavior and spirituality. What all this means to drug treatment recovery in the future is discussed in the following section.

DISCUSSION

The purpose of this research project was to analyze whether drug treatment as an intervention can change a person's behavior and values, and increase their perception of a spiritual power. It is these very components that I purported to be necessary for ongoing recovery from addiction. As a social worker in the community,

it is imperative that drug treatment effects these aspects of recovery. A social worker needs the knowledge that drug treatment is a service that is tested and a reliable resource. Drug addiction, along with the problems that it carries, effects all of society, from the individual, to the family, community and nation. Efforts must be made to make drug treatment an option for all those who seek it, regardless of the uniqueness that makes up that individual (i.e., gender, age or ethnicity).

This research has brought up more questions than it has answered. Initially, the project looked at whether there is significant change between a pre- and post-test variables of values, behaviors and spiritual changes as a result of drug intervention. The results of this research brought up three areas of significance: 1) honesty as an important factor in daily living; 2) the knowledge that drug and alcohol use effect family and friends; and, 3) that it is important that an individual understands their faults. Faults are described as those behaviors that could get in the way of the recovery process.

The three variables of honesty, family and friends and faults indicate a process that is taking place in early recovery. When a person enters treatment, they have most often come in with utter despair. What was used at one time as a successful coping mechanism is no longer working. As a result of this incomprehensible demoralization, individuals are in a great deal of pain emotionally, physically and spiritually. The wreckage left behind includes family, friends, the respect of others

and one's self, and often the inability to recognize or associate their use with the problems they have created.

It is in early recovery that the walls of denial must be brought down. It is through the interaction of the three variables of significance that early recovery starts. If one examines closely, all three variables are inter-connected. The concept "my drug use has effected my family and friends" requires a person to answer honestly to get to the conclusion that their use has effected friends and family. Faults come under admitting where one was wrong. Addicts learn in early treatment that admitting wrongdoing is essential for accepting responsibility of behavior. Admitting faults honestly with family members starts the healing process that comes with recovery.

These were the three out of twenty variables that showed any significant differences after 30 days of drug treatment. This is lower than I had expected, but, had the research lasted perhaps 30 more days, the results might have been positively effected in the other areas tested as well. The research shows that 30 days does not allow an individual the opportunity to work steps of recovery that will effect a change on the remaining variables. Many of these variables require extensive recovery to incorporate in one's recovery.

The qualitative section of this project looked at three areas; spirituality, making amends and following directions. After analyzing this qualitative data, there seemed to be a change in regard to spirituality. Spirituality was seen post-test as an important area for continued sobriety. The remaining two areas of amends and

following of directions did not seem to change from pre- to post-test results. This may be due to participant knowledge of these values and behaviors as important to recovery, and they may have answered accordingly.

Data was also collected on gender, ethnicity and age. The hypothesis did not state gender, ethnicity and age as determining cause of outcome, but the analysis showed some interesting significance in these areas. Gender seemed to be a significant determining factor for females in the understanding of faults, sharing of knowledge with others and personal willpower. Males measured as significantly different on the effects their drug use had on family and friends. Ethnicity was a factor also. White participants scored significantly on pre- and post-test results in honesty, family/friends, unmanageability, comfort level with others and social use. Non-white showed significance in the area of honesty only. Analysis was also calculated for age. Age was split into two groups; those over 32 years of age and those under 32 years of age. Significant results were found for those under 32 years of age in control over their lives, honesty, sharing of knowledge and understanding faults. Participants over 32 years of age scored significant differences in pre- and post-test results in admitting mistakes and understanding that personal willpower interferes with recovery.

After running cross tabulations for demographics, a matrix of probability was computed for all variable combinations. Probabilities that fell below .05 were crosstabulated with age, gender and ethnicity. The most interesting data was

produced showing that ethnicity, age and gender played a major role in determining significant recovery outcome. These results have led me to believe that drug treatment needs to be individually tailored to different groups. Each group has their own unique history and experience. It is these perspectives that must be understood in order that recovery can succeed. All too often, models of recovery have been devised for helping one group. This study shows that being female, young or old, Black, Hispanic, Native American or Asian makes a difference. We need to look at models of recovery that adjust to different life experiences.

As social workers, our role is to help those individuals who lack power to effect a change for themselves. It is the very groups mentioned in this study that fit this role. Addiction is no different, and social workers must effect change with our unique knowledge of individuals and their particular needs. This needs to be accomplished on an individual level, group level and political level. Social workers possess this unique skill of advocacy at all three levels.

APPENDIX A: SURVEY DOCUMENTS
INFORMED CONSENT

The study in which you are about to participate will ask you questions about your experience with values and behaviors. Also included is a question about your idea of spirituality. You will be interviewed twice, upon entering the treatment program and when leaving the treatment program.

This study is being conducted by Ralph Jacobsson, under the supervision of Dr. Majorie Hunt, Professor of Social Work. This study has been approved by the Institutions Review Board of California State University, San Bernardino. This study requires 20 minutes of your time to complete.

Please be assured that any information you provide will be held in strict confidence by the researcher. At no time will your name be reported along with your responses. All data will be reported in group form only. At the conclusion of this study, you may receive a report of the results.

Please understand that your participation in this research is totally voluntary and you are free to withdraw at any time during this study without penalty, and to remove data at any time during this study. Your participation or lack of participation in this study will in no way jeopardize or compromise your treatment stay.

****

I acknowledge that I have been informed of and understand the nature of and understand the nature of and purpose of this study, and a freely consent to participate.

_____ _____

Participant's Signature Date

Case #

QUESTIONNAIRE

Gender: Male Female
Ethnicity:
Age:
Educational Background:
Number of Treatment Attempts:
Is your treatment stay here voluntary or involuntary?

1. Control is important in my life.

Strongly Disagree				Strongly Agree
1	2	3	4	5

2. I am powerless over other people's actions.

Strongly Disagree				Strongly Agree
1	2	3	4	5

3. Honesty is important in all of my life areas.

Strongly Disagree				Strongly Agree
1	2	3	4	5

4. My drug/alcohol use effects my family/friends.

Strongly Disagree				Strongly Agree
1	2	3	4	5

5. It is important for me to share my knowledge with others.

Strongly Disagree				Strongly Agree
1	2	3	4	5

6. It is important for me to admit my mistakes.

Strongly Disagree				Strongly Agree
1	2	3	4	5

7. I will follow directions even if it is contrary to what I believe.

Strongly Disagree				Strongly Agree
1	2	3	4	5

8. I am open to new information and ideas.

Strongly Disagree				Strongly Agree
1	2	3	4	5

9. It is important to understand my faults.

Strongly Disagree				Strongly Agree
1	2	3	4	5

10. It is important to pass knowledge and experience to others.

Strongly Disagree				Strongly Agree
1	2	3	4	5

11. I take responsibility for my actions and behaviors.

Strongly Disagree				Strongly Agree
1	2	3	4	5

12. I can control my drug/alcohol use under certain circumstances.

Strongly Disagree				Strongly Agree
1	2	3	4	5

13. I will ask for help, for I don't know everything.

Strongly Disagree				Strongly Agree
1	2	3	4	5

14. Belief in myself is all I need to solve my problem with alcohol/drugs.

Strongly Disagree				Strongly Agree
1	2	3	4	5

15. Because of my drug/alcohol use, I cannot manage my own life.

Strongly Disagree Strongly Agree
1 2 3 4 5

16. I can never drink/use again, not even once.

Strongly Disagree Strongly Agree
1 2 3 4 5

17. My life has become unmanageable because of drugs/alcohol.

Strongly Disagree Strongly Agree
1 2 3 4 5

18. Personal will power is all that is needed to recover from alcoholism/addiction.

Strongly Disagree Strongly Agree
1 2 3 4 5

19. I feel comfortable around other people.

Strongly Disagree Strongly Agree
1 2 3 4 5

20. People say I am too dependent on other people.

Strongly Disagree Strongly Agree
1 2 3 4 5

21. I drink or use more in social situations.

Strongly Disagree Strongly Agree
1 2 3 4 5

* * * * * * * * *

1. What does spirituality mean to you? Is it important to you? Explain.

2. I consider myself an alcoholic or addict.

YES **NO**

3. How likely are you to follow directions that are contrary to the way you behave?

4. How likely are you to admit to a person directly that you are sorry for causing them pain?

DEBRIEFING

The research project that you have participated in was designed to measure the changes that occurred as a result of substance abuse treatment. The 12 steps of Alcoholics Anonymous has certain values and behaviors that are conducive to recovery. It is those values and behaviors that were measured. In addition to the above changes, spirituality was also tracked from the pre-test to the post-test.

If any of the procedures have caused you any harm to your sobriety, please feel free to contact Alcoholics Anonymous Central Office @ (909) 825-4700.

A copy of the results of this research will be shelved at the Department of Social Work at California State University, San Bernardino. Contact Ralph Jacobsson or Dr. Majorie Hunt, Advisor, @ (909) 880-5501. Thank you.

APPENDIX B: STATISTICAL TABLES

TABLE #1			
PRE-TEST/POST-TEST DATA ANALYSIS FOR VARIABLES			
VARIABLE	*CRAMER'S V*	*VALUE*	*GAMMA*
1. Control Life	0.201	0.513	0.398
2. Powerless	0.540	0.354	0.433
*3. Honesty	0.005	0.793	0.765
*4. Family/Friends	0.012	0.671	0.653
5. Share Knowledge	0.290	0.352	0.600
6. Admit	0.207	0.384	0.706
7. Direction	0.469	0.442	-0.333
+8. Open			
*9. Faults	0.000	0.708	0.900
10. Share Experience	0.133	0.495	0.417
11. Responsibility	0.882	0.171	-1.000
12. Control Drug	0.215	0.508	0.600
13. Help	0.813	0.218	-1.000
14. Willpower	0.700	0.397	0.169
15. Unmanageability	0.332	0.475	0.303
16. Drink Use	0.364	0.404	.0154
17. Personal Will	0.095	0.560	0.776
18. Comfortable	0.271	0.491	0.200
19. Dependent	0.151	0.531	0.470
*20. Social	0.006	0.651	0.727

TABLE #2				
PRE-TEST/POST-TEST DATA ANALYSIS FACTORING GENDER				
VARIABLE	***F/M***	***CRAMER'S V***	***VALUE***	***GAMMA***
1. Control Life	F	0.308	0.565	0.400
	M	0.129	0.741	0.500
2. Powerless	F	0.166	0.542	0.444
	M	0.268	0.661	0.714
3. Honesty	F	0.085	0.793	0.500
	+M			
4. Family/Friends	F	0.165	0.542	0.555
	*M	0.011	1.000	0.750
5. Share Knowledge	F	0.165	0.542	0.666
	M	0.525	0.377	0.500
6. Admit	F	0.884	0.149	-1.000
	M	0.076	0.755	1.000
7. Direction	F	0.473	0.511	-0.066
	M	0.147	0.726	-.0636
8. Open	+F			
	+M			
9. Faults	*F	0.004	1.000	1.000
	+M			
10. Share Experience	*F	0.025	0.711	0.636
	M	0.851	0.188	-1.000
11. Responsibility	F	0.969	0.157	-1.000
	M	0.453	0.250	-1.000
12. Control Drug	F	0.513	0.582	0.588
	M	0.206	0.685	0.684

TABLE #2 - Con't.				
13. Help	F	0.937	0.937	-1.000
	M	0.453	0.453	-1.000
14. Willpower	F	0.678	0.678	0.538
	M	0.615	0.615	0.250
15. Unmanageability	F	0.302	0.302	0.363
	M	0.781	0.781	0.200
16. Drink Use	F	0.084	0.084	0.777
	M	0.754	0.754	-1.000
17. Personal Will	*F	0.034	0.034	0.785
	M	0.242	0.242	0.826
18. Comfortable	F	0.656	0.656	0.250
	M	0.283	0.283	0.222
19. Dependent	F	0.182	0.182	0.786
	M	0.599	0.533	0.294
20. Social	F	0.071	0.071	0.555
	M	0.182	0.182	0.904

TABLE #3				
PRE-TEST/POST-TEST DATA ANALYSIS FACTORING ETHNICITY 1=WHITE; 2=NON-WHITE				
VARIABLE	*RACE*	*CRAMER'S V*	*VALUE*	*GAMMA*
1. Control Life	1	0.514	0.477	0.470
	2	0.204	0.729	0.375
2. Powerless	1	0.552	0.418	0.333
	2	0.151	0.648	0.333
3. Honesty	*1	0.020	0.674	1.000
	*2	0.046	1.000	0.429
4. Family/Friends	*1	0.027	0.777	0.688
	2	0.180	0.654	1.000
5. Share Knowledge	1	0.368	0.408	0.636
	2	0.380	0.512	0.500
6. Admit	1	0.070	0.522	1.000
	2	0.169	0.666	0.428
7. Direction	1	0.766	0.399	-0.437
	2	0.254	0.577	-0.250
8. Open	+1			
	+2			
9. Faults	+1			
	*2	0.018	1.000	1.000
10. Share Experience	1	0.640	0.135	-1.000
	2	0.083	0.717	0.500
11. Responsibility	1	0.896	0.135	-1.000
	2	0.565	0.378	-1.000
12. Control Drug	1	0.141	0.612	0.641
	2	0.277	0.695	0.500

TABLE #3 - Con't.				
13. Help	1	0.897	0.134	-1.000
	2	0.564	0.377	-1.000
14. Willpower	1	0.703	0.500	0.000
	2	0.407	0.623	0.529
15. Unmanageability	*1	0.050	0.723	0.565
	2	0.319	0.658	0.077
16. Drink Use	1	0.896	0.134	-1.000
	2	0.315	0.537	0.428
17. Personal Will	1	0.084	0.681	0.888
	2	0.333	0.756	0.555
18. Comfortable	*1	0.018	0.821	0.095
	2	0.375	0.635	0.411
19. Dependent	1	0.164	0.695	0.487
	2	0.109	0.806	0.600
20. Social	*1	0.032	0.763	0.822
	2	0.474	0.589	0.466

TABLE #4				
PRE-TEST/POST-TEST DATA ANALYSIS FACTORING AGE 20=Less than 32 yrs; 40=Greater than 32 yrs				
VARIABLE	***AGE***	***CRAMER'S V***	***VALUE***	***GAMMA***
1. Control Life	*20	0.026	0.838	0.500
	40	0.186	0.698	0.263
2. Powerless	20	0.517	0.384	0.130
	40	0.707	0.125	-1.000
3. Honesty	*20	0.011	1.000	0.600
	*40	0.047	0.661	1.000
4. Family/ Friends	*20	0.014	0.849	0.777
	40	0.132	0.670	0.500
5. Share Knwldge	*20	0.057	0.645	1.000
	40	0.391	0.274	-1.000
6. Admit	20	0.267	0.485	0.456
	*40	0.047	0.661	1.000
7. Direction	20	0.332	0.456	0.153
	40	0.321	0.620	-0.818
8. Open	+20			
	+40			
9. Faults	*20	0.004	1.000	1.000
	40			
10. Share Expernc	20	0.268	0.485	0.454
	40			
11. Responsibility	20	0.730	0.239	-1.000
	40	0.570	0.188	-1.000
12. Control Drug	20	0.422	0.527	0.448
	40	0.062	0.908	0.826

TABLE #4 - Con't				
13. Help	20			
	40	0.692	0.285	-1.000
14. Willpower	20	0.324	0.562	0.400
	40	0.446	0.666	-0.250
15. Unmangeability	*20	0.058	0.826	0.391
	40	0.350	0.608	0.166
16. Drink Use	20	0.163	0.682	0.454
	40	0.851	0.189	-1.000
17. Personal Will	20	0.446	0.602	0.500
	*40	0.012	0.841	1.000
18. Comfortable	20	0.246	0.683	0.333
	40	0.374	0.598	0.052
19. Dependent	20	0.292	0.654	0.388
	40	0.152	0.610	0.555
20. Social	20	0.548	0.488	0.793
	*40	0.088	0.747	0.700

***Significance at .05 Level**

+Cannot be computed when the number of non-empty rows or columns is one

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